

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A structured document processing system for processing a structured document that is structurally represented and contains one or more document parts, the structured document processing system comprising:

a processor;

~~instruction-rule~~ providing means for providing an extraction ~~instruction-rule~~ to extract a document part, a repetitive duplication ~~instruction-rule~~ to duplicate a document part by a given number of times, or an insertion/substitution ~~instruction-rule~~ to insert or substitute a document part to a corresponding document part, the ~~instruction-rule~~ providing means embedding the ~~instruction-rule~~ in a structured document containing the document part;

analyzing means for analyzing the structure of the structured document to generate a parse tree;

~~instruction-rule~~ separating means for separating the ~~instruction-rule~~ embedded in the structured document and the document part to retrieve the ~~instruction-rule~~, based on the parse tree generated by the analyzing means;

document processing ~~description~~-synthesizing means for synthesizing a document processing ~~description-rule string~~ based only on the ~~instruction-rule~~ embedded in the structured document, the document processing description synthesizing means merging and sorting the extraction ~~instruction-rule~~ embedded in a first structured document and retrieved by the ~~instruction-rule~~ separating means, and the repetitive duplication ~~instruction-rule~~ and/or insertion/substitution ~~instruction-rule~~ embedded in a second structured document and retrieved by the ~~instruction-rule~~ separating means from a second structured document in which the repetitive duplication ~~instruction-rule~~ and/or insertion/substitution ~~instruction-rule~~

is embedded, to synthesize a document processing ~~description having an instruction rule~~
string for processing the first and second structured documents;

extracting means for retrieving a first document part subject to the extraction
~~instruction rule~~ from the first structured document;

repetitive duplication means for repeatedly duplicating a document part subject
to the repetitive duplication ~~instruction rule~~ and ~~an instruction a rule~~ provided to the
document part by a given number of times;

inserting/substituting means for inserting the first document part before or
after a second document part subject to the insertion/substitution ~~instruction rule~~ or
substituting the first document part for the second document part; and

an interpreter for sequentially ~~interpreting executing~~ the document processing
~~description rule string~~ and synthesizing document parts by using the extracting means, the
repetitive duplication means, and/or the inserting/substituting means.

2. (Currently Amended) The structured document processing system according
to claim 1, wherein:

the extraction ~~instruction rule~~ is an attribute extraction ~~instruction rule~~ that
specifies retrieval of an attribute of a document part;

the insertion/substitution ~~instruction rule~~ is an attribute substitution ~~instruction~~
~~rule~~ that specifies substitution of an attribute of a document part;

the ~~instruction rule~~ separating means retrieves the attribute extraction
~~instruction rule~~ and attribute insertion/substitution ~~instruction rule~~ from a structured
document;

the inserting/substituting means is attribute substituting means for substituting
an attribute of the first document part for an attributes of the second document part subject to
the attribute substitution ~~instruction rule~~; and

the interpreter ~~interprets~~ executes the document processing ~~description-rule~~ string synthesized by the document processing ~~description-synthesizing~~ means, extracts the attribute of a given node of the document part specified in the attribute extraction ~~instructions~~ rules, and sets the extracted attribute in the given node of the document part specified in the attribute substitution ~~instruction~~ rule.

3. (Currently Amended) The structured document processing system according to claim 2, wherein the attribute substituting means makes, in accordance with the attribute substitution ~~instruction~~ rule, substitution of a string synthesized by combining an attribute value string set in advance in the document part and a string obtained from a state of the system.

4. (Currently Amended) The structured document processing system according to claim 1, wherein:

the extraction ~~instruction~~ rule includes a path name;

each of the repetitive duplication ~~instruction~~ rule and insertion/substitution ~~instruction~~ rule includes a pattern expression;

the ~~instruction~~ rule separating means retrieves, from the structured document, the extraction ~~instruction~~ rule and the path name, or the repetitive duplication ~~instruction~~ rule, the insertion/substitution ~~instruction~~ rule, and the pattern expressions;

the repetitive duplication means performs pattern matching between the path name provided to the extracted document part and the pattern expression, and performs repetitive duplication by the number of document parts having a matching path name; and

the inserting/substituting means performs pattern matching between the path name provided to the extracted document part and the pattern expression, and inserts or substitutes a document part having a matching path name.

5. (Currently Amended) The structured document processing system according to claim 1, wherein the inserting/substituting means inserts or substitutes the extraction ~~instruction-rule~~ provided to the document part retrieved by the extracting means.

6. (Currently Amended) The structured document processing system according to claim 5, wherein the inserting/substituting means, when inserting or substituting the extraction ~~instruction-rule~~ provided to the document part retrieved by the extracting means, changes the path name included in the extraction ~~instruction-rule~~ and then inserts or substitutes the extraction ~~instruction~~ rule.

7. (Currently Amended) A structured document processing system for processing a structured document containing one or more document parts and structurally represented, the processing being implemented by cooperative processing through computer communications on a distributed network system constituted of two or more networked computers, the structured document processing system comprising at least:

a file server that stores a structured document as a file of a predetermined format, and in response to the receipt of a file name, sends a corresponding file via the network; and

a structured document processing server that performs document processing for the file,

wherein the structured document processing server comprises:

input means for inputting and analyzing a processing invocation description containing the file name of a first structured document in which an extraction ~~instruction-rule~~ specifying extraction of a document part is embedded and the file name of a second structured document in which a repetitive duplication ~~instruction-rule~~ or insertion/substitution ~~instruction-rule~~ is embedded, sending the file name contained in the processing invocation

description to the file server via the network, and inputting a file corresponding to the file name from the file server via the network;

document processing means for analyzing the first structured document and the second structured document to generate a parse tree, scanning the parse tree and separating the document part, the document processing means retrieving the extraction ~~instruction-rule~~ embedded in the first structured document and the repetitive duplication or insertion/substitution ~~instruction-rule~~ from the second structured document and merging and sorting the ~~instructions-rules~~ to synthesize a document processing ~~description-rule string~~ based only on the extraction ~~instruction-rule~~ embedded in the first structured document and the repetitive duplication instruction or insertion/substitution ~~instruction-rule~~ embedded in the second structured document, and ~~interpreting-executing~~ the document processing ~~description-rule string~~ to synthesize a structured document; and

output means for outputting the synthesized structured document or the document part obtained by the document processing means as a file of a given format via the network.

8. (Original) The structured document processing system according to claim 7, wherein:

the processing invocation description may define a distributed file name on the network in a format in which the server name of the structured document processing server is contained;

at least first and second structured document processing servers to process the structured document exist on the network;

in a first processing invocation description inputted to the first structured document processing server, file names of a first original document and/or first template subject to document processing are described in a format of a second processing invocation

description containing the server name of the second structured document processing server;
and

the first structured document processing server, in response to the input of the first processing invocation description, extracts the second processing invocation description described as the file names of the first original document and/or first template, sends it to the second structured document processing server via the network, receives a file containing a structured document or a document part outputted by the second structured document processing server invoking the second processing invocation description, via the network, and uses it as the first original document and/or first template.

9. (Original) The structured document processing system according to claim 8, wherein:

the second structured document processing server to input the second processing invocation description is configured on the same computer system as that of the first structured document processing server and does not require communications with the first structured document processing server via the network; and

the first structured document processing server has switching means for inputting, in place of the file containing a structured document or document parts, the structured document or document part, which is the product of processing by the second structured document processing server, as a parse tree.

10. (Original) The structured document processing system according to claim 7, further comprising:

holding means for holding a parse tree of an original document or template inputted from the file server in association with a file name or a processing invocation description; and

input means for inputting, instead of a structured document file corresponding to the file name from the file server, a corresponding parse tree from the holding means.

11. (Original) The structured document processing system according to claim 2, wherein:

the structured document processing system inputs a processing invocation description containing a file name of the first structured document in which the extraction instruction specifying the extraction of a document part is embedded, and a file name of the second structured document in which the repetitive duplication instruction or attribute substitution instruction is embedded; and

the attribute substituting means sets a string obtained by replacing part of the processing invocation description by an attribute string set in advance in the document part, as the attribute string of the document part.

12. (Currently Amended) A structured document processing system for processing a structured document that is structurally represented and contains one or more document parts, the system comprising:

a processor;

analyzing means for analyzing a structure of the structured document to generate a parse tree;

~~instruction-rule~~ separating means for separating, based on the parse tree generated by the analyzing means, ~~an instruction~~ a rule embedded in the structured document from a document part to which the ~~instruction-rule~~ is provided, retrieving the ~~instruction rule~~, and outputting error information upon detection of a syntax error of the ~~instruction rule~~;

error notice document synthesizing means for inputting the error information to synthesize a document for error notice;

processing invocation description synthesizing means for synthesizing a document processing ~~description-rule string~~ based only on the ~~instruction-rule~~ embedded in the structured document, the processing ~~instruction-rule~~ description synthesizing means merging and sorting ~~instructions-rules~~ retrieved from the structured document to generate a document processing ~~description-containing-an-instruction-rule~~ string for processing the structured document, and generating information about access to the error notice document;

processing invocation description analyzing means for interpreting a processing invocation description and retrieving the error notice document; and

holding means for holding the error notice document.

13. (Currently Amended) A processor-implemented structured document processing method for processing a structured document that is structurally represented and contains one or more document parts, the method comprising the steps of:

analyzing the structured document in which ~~instructions-rules~~ are embedded to generate a parse tree;

scanning the parse tree and separating the ~~instructions-rules~~ from a document part, to which the ~~instruction-rule~~ is provided, to retrieve the ~~instructions-rules~~ embedded in the structured document;

merging and sorting the ~~instructions-rules~~ retrieved from the structured document to synthesize a document processing ~~description rule string~~, based only on the ~~instructions-rules~~ embedded in the structured document; and

~~interpreting-executing~~ the document processing ~~description-rule string~~ to synthesize a structured document.

14. (Currently Amended) A processor-implemented structured document processing method for processing a structured document that is structurally represented and

contains one or more document parts, the structured document processing method comprising the steps of:

- (a) analyzing a first structured document, in which an extraction ~~instruction~~ rule specifying extraction of a document part is embedded, to generate a parse tree;
- (b) analyzing a second structured document, in which a repetitive duplication ~~instruction-rule~~ specifying duplication of a document part by a given number of times or an insertion/substitution ~~instruction-rule~~ specifying insertion or substitution of a document part is embedded, and generating a parse tree;
- (c) scanning the parse tree and separating the ~~instruction-rule~~ from the document part, to which the ~~instruction-rule~~ is provided, to retrieve an extraction ~~instruction~~ rule embedded in a first structured document and a repetitive duplication or insertion/substitution ~~instruction-rule~~ from a second structured document;
- (d) merging and sorting the extraction ~~instruction-rule~~ retrieved from the first structured document and the repetitive duplication ~~instruction-rule~~ and/or insertion/substitution ~~instruction-rule~~ retrieved from the second structured, and synthesizing a document processing ~~description~~ rule string, based only on the extraction/~~instruction~~ rule embedded in the first structured document and the repetitive duplication or insertion/substitution ~~instruction-rule~~ embedded in the second structured document;
- (e) ~~interpreting-executing~~ the document processing ~~description-rule string~~ and retrieving a first document part subject to the extraction ~~instruction-rule~~ from the first structured document;
- (f) ~~interpreting-executing~~ the document processing ~~description-rule string~~ and repeatedly duplicating a document part subject to the repetitive duplication ~~instruction-rule~~ and an ~~instruction-a rule~~ provided to the document part by a given number of times;

- (g) ~~interpreting~~ executing the document processing ~~description~~ rule string and inserting the first document part before or after a second document part subject to the insertion/substitution ~~instruction~~ rule or substituting the first document part for the second document part; and
- (h) outputting a parse tree obtained as a result of execution of the steps (e) to (g).